

ABSTRACT OF THE DISCLOSURE

A method of inducing either a T_H1 polarised immune response, a T_H2 polarised immune response or a combined T_H1 and T_H2 response to an antigen and associated vaccine formulations are disclosed. A method is provided for inducing a polarised T_H1 response by parenteral administration of microparticles sized such that at least 50% of the microparticles are less than 5 μ m, the microparticles containing antigen entrapped or encapsulated by a biodegradable polymer. Additionally, a method is provided for inducing a polarised T_H2 response by parenteral administration of nanoparticles sized such that at least 50% of the nanoparticles are less than 600 nm, the nanoparticles containing antigen entrapped or encapsulated by a biodegradable polymer. Vaccine formulations containing the *B. pertussis* antigens PTd, FHA or a combination of PTd and FHA are provided.